

Appl. No. 10/006,059
Amdt. dated 04/26/2005
Reply to Office Action of 01/26/2005

REMARKS

Claims 1 - 20 are pending in the present Application. In the above-identified Office Action, the Examiner objected to the Specification because of some informalities. Claims 1, 6, 11 and 16 were rejected under 35 U.S.C. §102(e) as being anticipated by Porras et al. Claims 2, 7, 12 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Porras et al. and further in view of Okada et al. Claims 3 - 5, 8 - 10, 13 - 15 and 18 - 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Porras et al. and Okada et al. in view of Lienhard et al.

The Examiner is thanked for the interview of April 26, 2005. During the interview, Applicants' attorney agreed to amend the preamble of the broadest claims (i.e., Claims 1, 6, 11 and 16) to define the term "network simulation" as well as to explain that XML is an acronym of eXtensible Markup Language. Consequently, Claims 1, 6, 11 and 16 have been amended.

The Specification has also been amended to include the Serial Nos. of the Related Applications. The Specification is further amended to correct a typographical/grammatical error.

For the reasons stated more fully below, Applicants submit that the claims are allowable over the applied references. Hence, reconsideration, allowance and passage to issue are respectfully requested.

As stated in the SPECIFICATION, most network application programs exchange data using data packets. AUS920010871US1

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packet has a specific structure that incorporates internal fields that clearly delineate the packets' different contents. Using this structural representation, a user may devise algorithms that may be used to effectuate network simulation testing to debug network problems etc. The algorithms may be devised using a markup language, for example. A markup language is a language that allows additional text or tags that are invisible to users to be inserted into a document. Thus, the tags are not part of the content of the document but rather enhance the document. For example, the tags may be used to structure the document or to add hypertext capability to the document etc.

One of the markup languages that is particularly well suited for this task is the extensible Markup Language or XML. XML is a language that is especially designed for Web documents. It allows designers to create their own customized tags, enabling definition, transmission, validation, and interpretation of data between applications and between organizations.

Therefore, if connection establishment, transition state of each user data packet and close connection procedures of a network communications protocol as well as the rules required to implement an XML document are known, a software program may be written to convert the communications protocol data transactions into an XML document. The transactions may be acquired, for example, through an existing application program such as TCPdump, Iptrace, IPreport etc. or through a network sniffer.

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Thus, network communications exchanges between two network computers may be expressed using XML documents. Once an XML document that expresses a network communications exchange between two computers is generated, the content of the document may be changed to effect changes in the communication exchange. In other words, the XML document may be used to perform network protocol simulation.

The present invention provides just such a method. In accordance with the teachings of the invention, network protocol data packets are used to generate an XML document. Then, changes are made in the document to perform network protocol simulation (see page 27, line 19 to page 28, line 4).

The invention is set forth in claims of varying scopes of which Claim 1 is illustrative.

1. A method of performing network protocol simulation using an Extensible Markup Language (XML) document, the XML document representing network communication exchanges, the network protocol simulation including changes made in the XML document to effect changes in the network communication exchanges, the method comprising the steps of:
generating an XML document using network protocol data packets; and
changing a part of the XML document to perform the network protocol simulation. (Emphasis added.)

The Examiner rejected the independent claims (i.e., Claims 1, 6, 11 and 16) under 35 U.S.C. §102(e) as being

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anticipated by Porras et al. Applicants submit that the claims, as now presented, are allowable over the applied references.

Porras et al. purport to disclose a network-based alert management system. According to the teachings of Porras et al., alerts from network sensors are received, consolidated, if the alerts are indicative of a common incident, and an output is generated reflecting the consolidated alerts.

More specifically, sensors are used to monitor hosts and/or network activity within a network. Each sensor may generate a stream of alerts, triggered by potentially suspicious events, such as network packet data transfer commands, data transfer errors, network packet data transfer volume, and so forth. The alert streams contain raw (i.e., unprocessed) alerts that may be formatted in a variety of formats, such as IDIP, SNMP, HP Openview, an XML-based standard format (such as the Attack Specifications from IETF), Common Intrusion Detection Framework (CIDF), GIDOs, or some other format.

However, Porras et al. do not teach, show or suggest a method of **changing a part of an XML document** that has been generated using network protocol data packets to **perform network protocol simulation** as claimed. Indeed, Porras et al. have no reason to show the emboldened/italicized claimed element since their disclosure (contrary to the Examiner's assertion (see the first two lines of the second paragraph (or fifth paragraph of the Action) which is on page 3 of the Office Action of January 26, 2005)) is not directed to a **method of performing network protocol**

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simulation using an XML document but rather to a network-based alert management system.

Since neither Okada et al. nor Lienhard et al., the other two applied references, purports to teach, show or suggest a method of ***changing a part of an XML document*** that has been generated using network protocol data packets to ***perform network protocol simulation*** as claimed, Applicants submit that Claim 1, as well as its dependent claims, are allowable. Independent Claims 6, 11 and 16, which all incorporate the above-emboldened-italicized limitations in the above-reproduced claim 1, together with their dependent claims are also allowable. Hence, Applicants once more respectfully request reconsideration, allowance and passage to issue of the claims in the application.

Respectfully submitted,
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